

REMARKS

Claims 1-24 and 26-30 are pending. Claims 1-3, 6, 10, and 13-16 have been rejected. Claims 4, 5, 11, and 12 have been objected to. Claims 7-9, 17-24, and 26-30 have been allowed.

The Examiner has objected to Claims 4, 5, 11, and 12 as depending upon a rejected base claim. Responsive thereto, Applicant has rewritten Claims 4, 5, 11, and 12 in independent form to include all the limitations of the base claim and any intervening claims. Therefore, Applicant respectfully requests that the Examiner remove his objection to Claims 4, 5, 11, and 12.

Additionally, to expedite prosecution of the Application, Applicant has cancelled Claims 1-3, and 6.

Claims 10 and 13-16 are rejected under 35 U.S.C. §103(a) as being obvious over Beebe '635 in view of Cannell '383 in further view of Monfarad '122. Independent Claim 10 defines a refrigeration system module requiring, *inter alia*, a frame, a heating plate, a cooling plate, an expansion device, and a hermetic compressor assembly, the compressor assembly being disposed between the heating and cooling plates.

The Examiner relies on Monfarad '122 for the disclosure of the hermetic compressor assembly. While Monfarad '122 discloses a hermetic compressor assembly, the compressor assembly of Monfarad '122 is located adjacent to the condenser and evaporator of the invention. Additionally, Monfarad '122 teaches away from combining a hermetic compressor with the compact refrigeration systems of Beebe '635 or Cannell '383. A disclosed advantage of Monfarad '122 is that the system is "compact," col. 3, line 49, and can be sized to "fit within a rack unit of a conventional computer server or a telecommunications rack." Col. 9, lines 6-7. Placement of the compressor between the heating and cooling plates would necessarily require increasing the distance from one heat exchanger to the other. This increase in distance from evaporator 614 and condenser 620, shown in Fig. 8 of Monfarad '122, would increase the size of the unit preventing it from fitting within several of its desired applications. Accordingly, a person having ordinary skill in the art would recognize from the figures and disclosure the intended application of Monfarad '122. Such recognition by a person having an ordinary skill in the art creates a disincentive to place the hermetic compressor between the heat exchangers.

In response to Applicant's argument regarding the teachings of Monfarad '122, the Examiner cited column 2, lines 19-22 of Monfarad '122 and stated "Monfarad discloses the size and design of prior art cooling system [sic] often required the major component cooling system be centrally located." Page 4, Office Action dated March 7, 2006. While the Examiner's partial

citation of Monfarad '122 is, in part, grammatically accurate, the Examiner relies on the above-identified partial citation in a manner incompatible with the entire disclosure of Monfarad '122. When read in context, and in its entirety, the portion of Monfarad '122 relied on by the Examiner does not disclose disposing a hermetic compressor between the heating and cooling plates of a refrigeration system module. The entire sentence cited by the Examiner states, "In addition, the size and design of prior art liquid-based cooling systems often required that the major components of the prior art liquid-based cooling system be centrally located, typically remote from the electronic devices to be cooled, and that a complicated system of tubing or 'plumbing' be used to bring the cooling liquid into thermal contact with the heat source, i.e., with the microprocessor, multi-chip module, or other integrated circuit." Col. 2, lines 18-26. Further, the disclosure of Monfarad '122 continues, "Consequently, unlike prior art air-based cooling systems, prior art liquid-based cooling systems were not modular, were not self-contained, and often required special expertise and tools for maintenance and operation." Col. 2, lines 26-29.

When taken in context, the Examiner's cited lines do not provide motivation to dispose a hermetic compressor assemble between the heating and cooling plates in a refrigeration system module as required by independent Claim 10. In fact, the sentence cited by the Examiner, when read in its entirety, places a further emphasis on the benefits of the Monfarad '122, particularly its compact design. This design allows the module of Monfarad '122 to be "self-contained and is specifically designed to have physical dimensions similar to . . . air-based cooling systems" and, as a results, avoid "the need for significant system housing modification or the 'plumbing' associated with prior art liquid-based cooling systems." Col. 3, lines 17-23. By disposing the hermetic compressor assembly between the heating and cooling plates of Monfarad '122, the system would exceed the physical dimensions of air-based cooling systems. Therefore, the disclosure cited by the Examiner, when taken in context, further teaches away from combining the hermetic compressor of Monfarad '122 with the compact refrigeration systems of Bebee '635 or Cannell '383 by creating a clear disincentive to place the hermetic compressor between the heat exchangers, as discussed above.

For the foregoing reasons, Applicant respectfully submits that Independent Claim 10, as well as Claims 13-16 which depend therefrom, are not obvious over Bebee '635 in view of Cannell '383 and further in view of Monfarad '122.

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Amendment After Final dated April 28, 2006
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It is believed that the above represents a complete response to the Official Action and reconsideration is requested. Specifically, Applicant respectfully submits that the application is in condition for allowance and respectfully requests allowance thereof.

In the event Applicant has overlooked the need for an additional extension of time, payment of fee, or additional payment of fee, Applicant hereby petitions therefore and authorizes that any charges be made to Deposit Account No. 02-0385, Baker & Daniels.

Should the Examiner have any further questions regarding any of the foregoing, the Examiner is respectfully invited to telephone the undersigned at (260) 424-8000.

Respectfully submitted,



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CERTIFICATION UNDER 37 C.F.R. 1.8(B)

I hereby certify that this correspondence is being electronically submitted to the United States Patent and Trademark Office on: April 28, 2006.

MATTHEW B. SKAGGS, REG. NO. 55,814

Name of Registered Representative



Signature

April 28, 2006

Date